

Clostridium difficile Infections (CDI) Update, Q2 of 2017/18

January 2018

Summary Table

	Q2 2017/18	Previous quarter (Q1 2017/18)*	Same quarter of previous year (Q2 2016/17)	Year-to-date 2017/18
Total CDI cases identified	502	515	525	1,017
Number of new CDI cases associated with the reporting facility	228	249	248	477
Total inpatient days	646,476	598,698	646,654	1,245,174
Rate of CDI associated with the reporting facility per 10,000 inpatient days (95% CI)	3.5 (3.1-4.0)	4.2 (3.7-4.7)	3.8 (3.4-4.3)	3.8 (3.5-4.2)

* There were more days in fiscal quarter Q2 than in Q1 in fiscal year 2017/18

Highlights

- The provincial rate of CDI associated with the reporting facility in Q2 of 2017/18 was 3.5 per 10,000 inpatient days, which was lower than the previous quarter (4.2 per 10,000 inpatient days). However, this decrease was not statistically significant.
- The decrease in Q2 of 2017/18, compared to Q2 of 2016/17 (3.5 versus 3.8 per 10,000 inpatient days), was also not statistically significant.
- The overall downward trend in the provincial rates from Q1 of 2013/14 to Q2 of 2017/18 is statistically significant.

What is *Clostridium difficile* infections (CDI)?

Clostridium difficile (*C. difficile*) is a bacterium that can live in the bowel without causing harm. For healthy people, *C. difficile* does not often pose a health risk. However, for people taking antibiotics or with weakened immune systems, e.g. patients who are elderly or undergoing chemotherapy, the normal balance of healthy bacteria in the digestive system may be upset, allowing *C. difficile* to grow to unusually high levels and produce toxins that can damage the bowel and cause diarrhea, fever, abdominal cramping, dehydration, and even death.

How is *Clostridium difficile* transmitted?

The bacteria and their spores are shed in feces. People can acquire the bacteria if they touch items or surfaces (e.g., toilets, commodes, bathing tubs, etc.) that are contaminated with feces, and then touch their mouth or mucous membranes without washing their hands thoroughly. *C. difficile* can live for long periods on surfaces and can spread very easily.

How to prevent *Clostridium difficile* transmission?

The risk of acquiring CDI can be reduced by frequent hand washing with soap and water — particularly after toileting, before eating, and after touching any frequently touched surfaces (such as door handles, elevator buttons, shared keyboards/mouses, etc.) Other risk reduction methods include avoiding sharing personal items and using antibiotics judiciously. Staff in healthcare settings can significantly reduce the spread of *C. difficile* by strictly following infection control guidelines.

Why is CDI being monitored in BC hospitals?

Monitoring CDI in acute care facilities helps us improve the quality of care and protect both patients and healthcare providers through the development of evidence based infection prevention and control guidelines. It also increases awareness and understanding of CDI among professionals and the public.

Where to find information about CDI

The PICNet website (www.picnet.ca) provides provincial guidance, toolkits, and related resources about CDI prevention and control, as well as the surveillance protocol and reports on CDI in BC. If you have questions or suspect that you have CDI, please contact your doctor or healthcare provider.

This quarterly update presents the latest data on incidence and trends of new CDI that were healthcare-associated (HCA) with the reporting facility among inpatients in the last five years. In the following graphs,

- 1) Relapses of CDI and new cases that were associated with another healthcare facility, community-associated, or of unknown origin were not included.
- 2) The data were aggregated by fiscal quarter for each health authority except Provincial Health Services Authority (PHSA), which aggregated the data by calendar quarter. The time frame of each fiscal quarter varied by fiscal year and there were more days in the fourth quarter (Q4) than in other three quarters (Q1, Q2, and Q3) of each fiscal year.
- 3) The line in each graph represents the overall linear trend over time.
- 4) Direct comparison of the number of cases or the rate between health authorities is not recommended due to variations in laboratory testing for confirmation of CDI diagnosis and in the application of CDI case definition.

Figure 1. Provincial rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2013/14- 2017/18, British Columbia

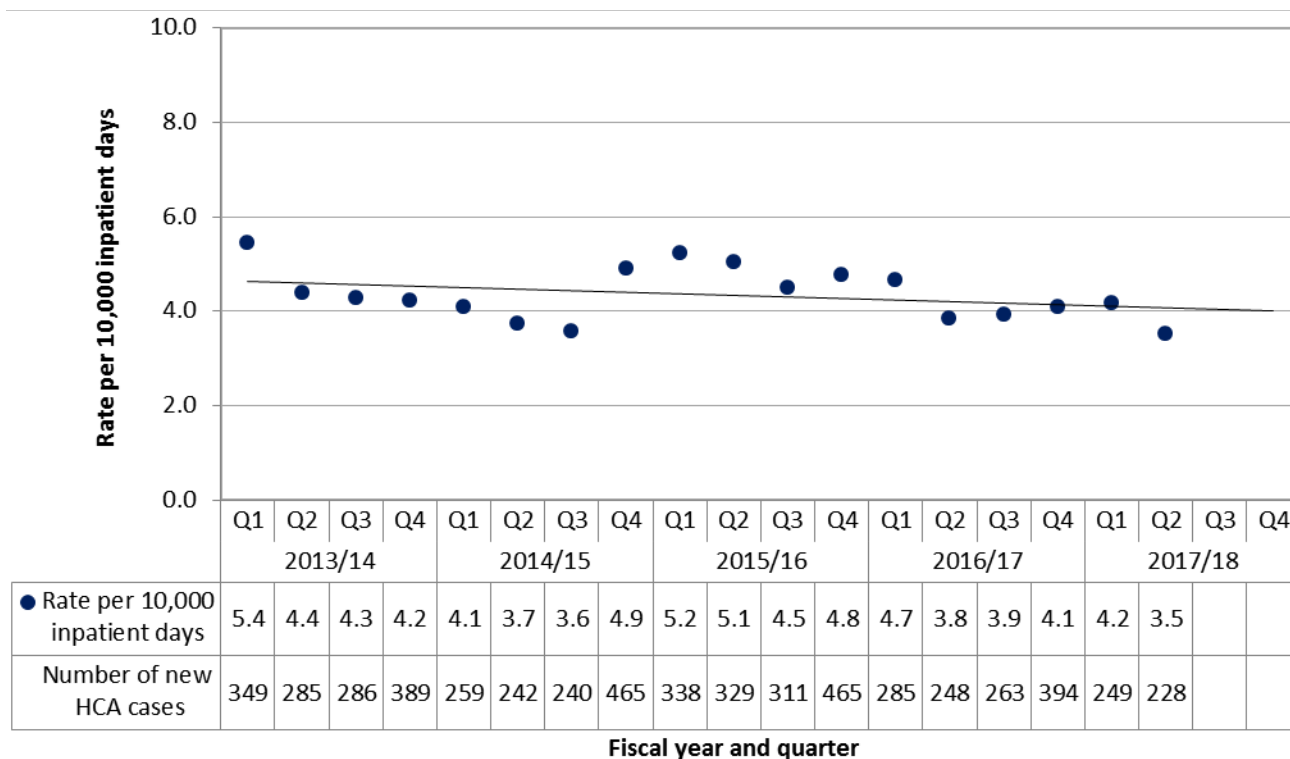


Figure 2. Rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2013/14- 2017/18, Interior Health

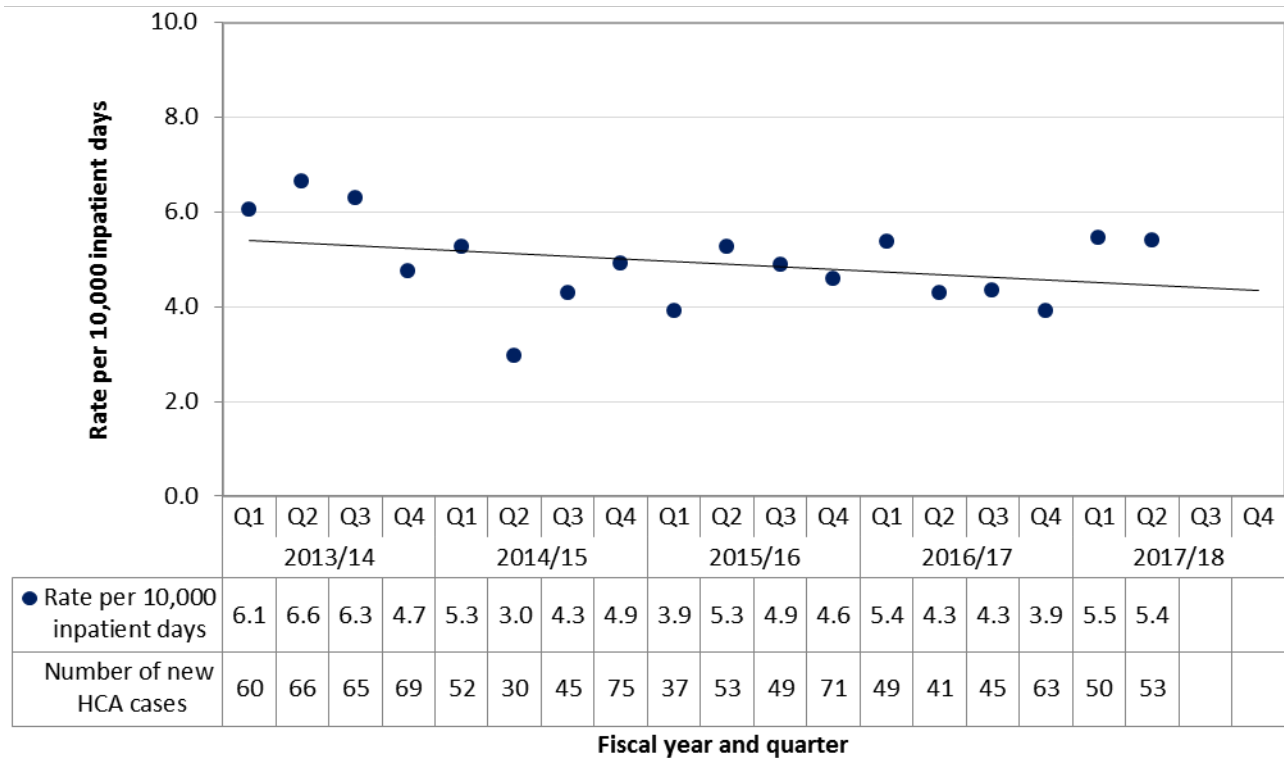


Figure 3. Rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2013/14- 2017/18, Fraser Health

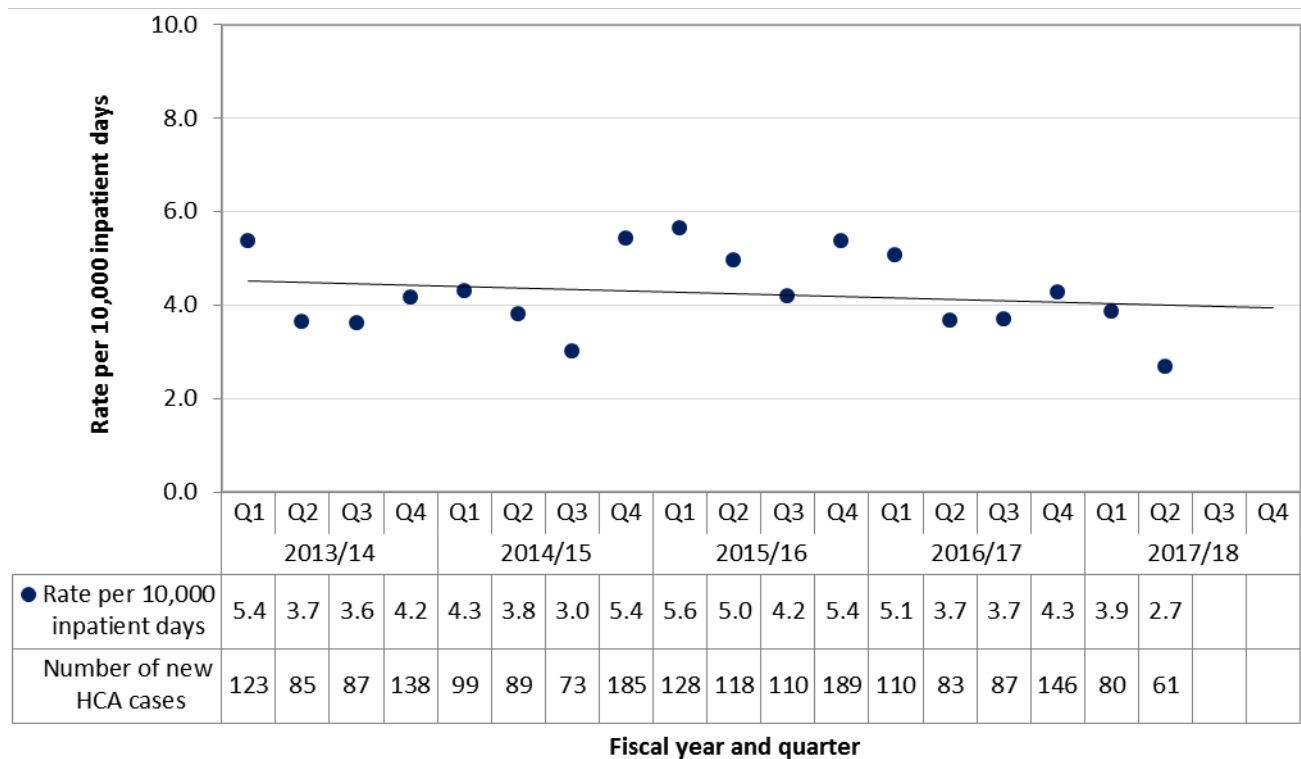


Figure 4. Rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2013/14- 2017/18, Vancouver Coastal Health¹

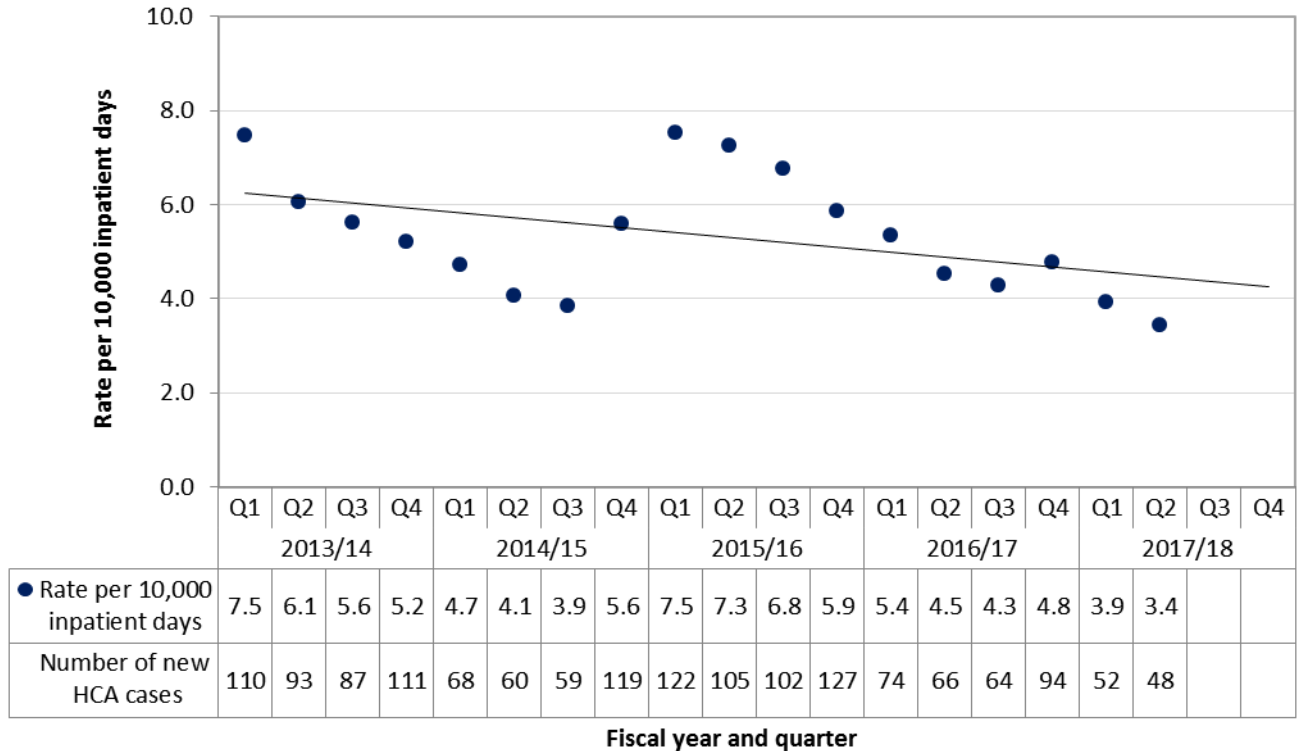
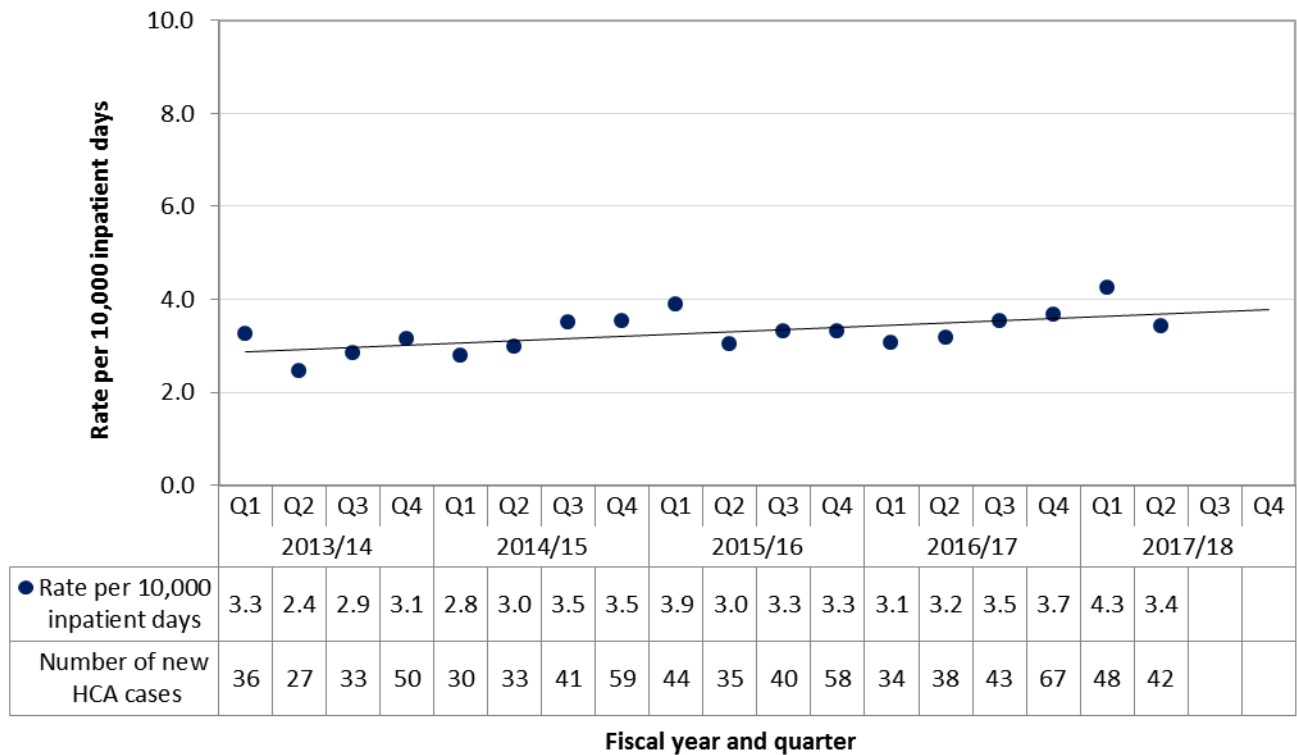


Figure 5. Rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2013/14- 2017/18, Island Health



¹ Includes acute care facilities of Providence Health Care (PHC)

Figure 6. Rate and number of new cases of CDI associated with the reporting facility, by fiscal year and quarter, 2013/14- 2017/18, Northern Health

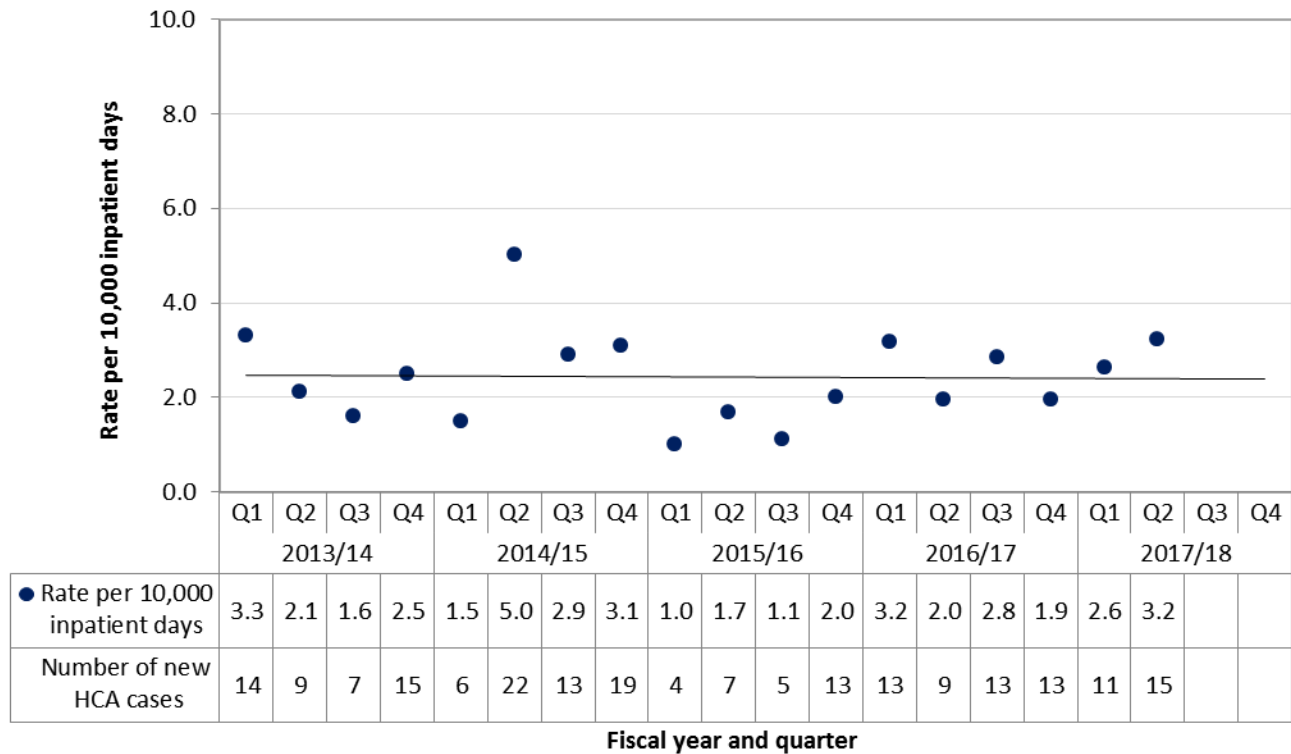
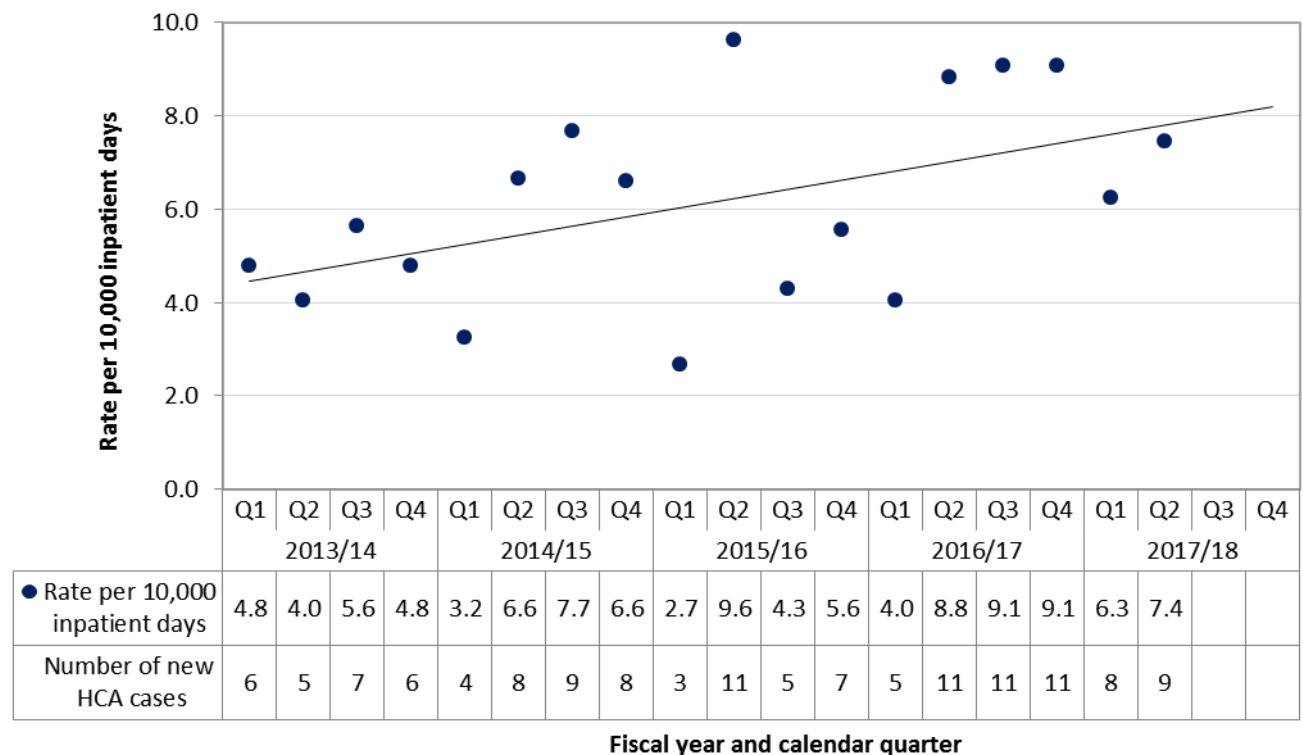


Figure 7. Rate and number of new cases of CDI associated with the reporting facility, by fiscal year and calendar quarter, 2013/14- 2017/18, Provincial Health Services Authority



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